

# RF Limiting Amplifier

High Output Level: +10 dBm

# Model TML9017

10 to 1000 MHz

## Features

- High Output Level: +10 dBm Typical
- Good Even Order Suppression
- Operating Temp. -55°C to +85°C
- Environmental Screening Available

## Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1000 MHz	10 - 1000 MHz
Small Signal Gain (dB)	11.5	9.5 Min.
Power @ 1 dB Comp. (dBm)	+11	+7.0 Min.
Output Limiting Level (dBm)Pin=+20 dBm	+15	+17 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.85:1	2.2:1 Max.
Noise Figure (dB)	5.8	7.5 Max.
Power Vdc	+15	+15
mA	36	42 Max.

Note: Care should always be taken to effectively ground the case of each unit.

## Typical Intermodulation Performance at 25°C

Second Order Harmonic Intercept Point ..... +43 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +37 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +24 dBm (Typ.)

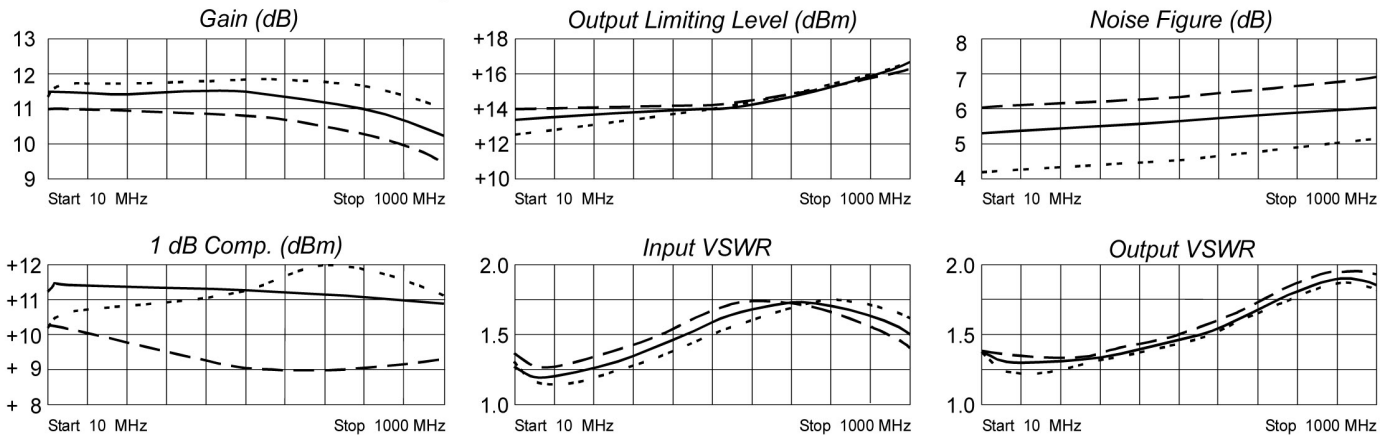
## Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18 Volts  
 Continuous RF Input Power ..... + 23 dBm  
 Short Term RF Input Power ..... 400 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 1.0 Watt (3 µsec Max.)

## Packaging Options (see Appendix)

TNL9017, 4 Pin Surface Mount (SM3)  
 BXL9017, Connectorized Housing (H1)  
 TML9017, 4 Pin TO-8 (T4)

## Typical Performance Data



Legend: ——— +25°C    - - - - +85°C    - · - · - -55°C

### Linear S-Parameters

Freq MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.12	-31	3.61	-176	.09	7	.16	166
50	.09	-12	3.67	171	.10	-2	.14	154
100	.09	-6	3.64	160	.10	-4	.15	136
200	.12	-7	3.63	139	.10	-11	.15	101
400	.19	-35	3.65	97	.10	-26	.21	35
600	.25	-73	3.63	54	.11	-44	.28	-22
800	.26	-113	3.50	8	.10	-77	.33	-77
1000	.19	-153	3.26	-39	.11	-72	.32	-137

